

PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 355 AND BETHESDA AVENUE / WILLOW LANE IN MONTGOMERY COUNTY, MARYLAND. MD 355 IS ASSUMED TO RUN IN AN NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION OPERATES IN A NEMA SIX-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 355 APPROACHES OPERATING CONCURRENTLY AND THE BETHESDA AVENUE / WILLOW LANE APPROACHES OPERATING CONCURRENTLY.

EXCLUSIVE LEFT-TURN PHASING IS PROVIDED FOR NORTHBOUND AND SOUTHBOUND MD 355 APPROACHES.

AN ALTERNATE PEDESTRIAN PHASE IS PROVIDED ACROSS BOTH LEGS OF MD 355 AND PEDESTRIAN INDICATIONS ARE PROVIDED ACROSS BETHESDA AVENUE, WILLOW LANE, AND PARKING LOT ENTRANCE.

TYPICAL MESSAGES FOR ACCESSIBLE PED SIGNALS

MD 355 (WISCONSIN AVENUE) AND WILLOW LANE - NORTH LEG

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS WISCONSIN AT WILLOW, WAIT." *

WALK: RAPID TICK

MD 355 (WISCONSIN AVENUE) AND BETHESDA AVENUE - SOUTH LEG

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS WISCONSIN AT BETHESDA, WAIT." *

WALK: RAPID TICK

WILLOW LANE AT MD 355 (WISCONSIN AVENUE) - EAST LEG

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS WILLOW AT WISCONSIN, WAIT." *

WALK: RAPID TICK

BETHESDA AVENUE AT MD 355 (WISCONSIN AVENUE), WAIT."*

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS BETHESDA AT WISCONSIN, WAIT."

WALK: RAPID TICK

* MESSAGE USED IF DISTANCE FROM NEAREST PUSHBUTTON FOR PERPENDICULAR CROSSING IS < 10'

NOTE: MESSAGES FOR INTERSECTION CONFIGURATIONS, VARYING FROM THE ABOVE ARE TO BE APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH UPS, VIDEO INTERFACE EQUIPMENT (1-8 CAMERAS) AND SYSTEM PACKAGE HOUSED IN A NEMA SIZE "S" BASE MOUNTED CABINET.

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT. ADDITIONAL TRAFFIC CONTROL STANDARDS MAY BE USED AS DIRECTED BY THE ENGINEER.

STANDARD NO. MD-104.04-02 (SHOULDER WORK)	STANDARD NO. MD-104.04-14 (LEFT TURN BAY CLOSURE)
STANDARD NO. MD-104.04-04 (LEFT LANE CLOSURE)	STANDARD NO. MD-104.04-16 (INTERSECTION LEFT LANE, TURN BAY)
STANDARD NO. MD-104.04-06 (RIGHT LANE CLOSURE)	
STANDARD NO. MD-104.04-08 (CENTER LANE CLOSURE)	

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MS. CORREN JOHNSON
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

MR. TOM FOUNTAIN
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (301) 513-7304

MR. VICTOR CRAFTON
DISTRICT UTILITY ENGINEER
PHONE: (301) 513-7350

MS. ANYESHA MOOKHERJEE
ASSISTANT DISTRICT ENGINEER - TRAFFIC (MONTGOMERY)
PHONE: (301) 513-7404

MR. KAMAL HAMUD
TEAM LEADER, TRAFFIC SIGNALS
MONTGOMERY COUNTY DOT
DIVISION OF TRAFFIC ENGINEERING AND OPERATIONS
PHONE: (240) 777-8761

MR. BOB RICKETTS
MONTGOMERY COUNTY SIGNAL SHOP
PHONE: (240) 876-3681

MR. ROBERT SNYDER - OOTS
ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS
PHONE: (410) 787-7630

MR. EDWARD RODENHIZER - OOTS
CHIEF, SIGNAL OPERATIONS SECTION
PHONE: (410) 787-7670

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

CATEGORY CODE	QUANTITY	DESCRIPTION
900000	1 EACH	CONTROLLER CABINET, SIZE "S" W/CTRL. VIDEO INT. 1-8 CAMERAS
900000	1 EACH	UPS EQUIPMENT FOR "S" CABINET
900000	1 EACH	LAU PANEL
973022	5 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF (GROUND MOUNT) : - 1 EACH R4-7 (24 IN. x 30 IN.) - GROUND MOUNT
973023	32 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF (POLE MOUNT) : - 1 EACH R3-2 (36 IN. x 36 IN.) - MAST ARM MOUNT - 1 EACH R3-5(L) (30 IN. x 36 IN.) - MAST ARM MOUNT - 1 EACH R4-7 (24 IN. x 30 IN.) - POLE MOUNT - 2 EACH R10-3(1) SIGN (9 IN. x 15 IN.) TO READ "PUSHBUTTON TO CROSS WISCONSIN AVENUE" - 2 EACH R10-3(1) SIGN (9 IN. x 15 IN.) TO READ "PUSHBUTTON TO CROSS WILLOW LANE" - 2 EACH R10-3(1) SIGN (9 IN. x 15 IN.) TO READ "PUSHBUTTON TO CROSS BETHESDA AVENUE" - 1 EACH R10-11b (24 IN. x 24 IN.) - MAST ARM MOUNT

MONTGOMERY COUNTY

C. EQUIPMENT TO BE SUPPLIED BY MONTGOMERY COUNTY

QUANTITY	DESCRIPTION
1 EACH	MONTGOMERY COUNTY SPLICE CABINET - POLE MOUNT

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

ALL REMOVED SIGNAL MATERIALS SHALL BECOME PROPERTY OF THE CONTRACTOR

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

CATEGORY CODE	QUANTITY	DESCRIPTION
120500	1 EACH	MAINTENANCE OF TRAFFIC
203030	8 C.Y.	TEST PIT EXCAVATION
585621	500 L.F.	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
585625	125 L.F.	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
801004	19 C.Y.	CONCRETE FOR SIGNAL FOUNDATION
801104	15 L.F.	WOOD SIGN SUPPORTS 4 INCH X 4 INCH
802501	705 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805125	165 L.F.	2 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805135	15 L.F.	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805140	100 L.F.	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805155	335 L.F.	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-SLOTTED
807202	1 EACH	METERED SERVICE PEDESTAL
810022	75 L.F.	ELECTRICAL CABLE 1-CONDUCTOR NO. 8 AWG-THHN/THWN
811001	6 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813014	5 S.F.	INSTALL GROUND MOUNTED SIGN
813015	119 S.F.	INSTALL OVERHEAD SIGN
818004	8 EACH	10 FOOT BREAKAWAY PEDESTAL POLE
818030	1 EACH	STEEL POLE WITH A SINGLE 38 FOOT MAST ARM
818051	1 EACH	STEEL POLE WITH TWIN 50 FOOT AND 70 FOOT MAST ARMS
831010	2 EACH	LED LAMP AND LUMINAIRE
832018	80 L.F.	CABLE - 1 CONDUCTOR, NO 2 AWG, TYPE USE, 600V
837001	10 EACH	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
860284	36 EACH	12 IN. LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
860290	2 EACH	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
861105	1230 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861106	460 L.F.	ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 AWG)
861107	1285 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	1390 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
866103	2 EACH	15 FOOT LIGHTING ARM ON SIGNAL STRUCTURE
871041	1 EACH	INSTALL AUXILIARY CABINET WITH TERMINAL STRIP - POLE MOUNT
871202	1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT
800000	1 EACH	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
800000	10 EACH	16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
800000	8 EACH	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION
800000	1 EACH	2-WIRE CENTRAL CONTROL UNIT
800000	2 EACH	VIDEO DETECTION CAMERA AND CABLE
800000	2 EACH	PAINT SIGNAL AND MAST ARM POLE FEDERAL BROWN NO. 595a-20040
800000	8 EACH	PAINT PEDESTAL POLE FEDERAL BROWN NO. 595a-20040

SHA

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 355 at Bethesda Avenue/Willow Lane
Bethesda, Maryland

GI

TRAFFIC SIGNALIZATION PLAN

SCALE NONE DATE 3/05/2013 CONTRACT NO. MT1175177

DESIGNED BY	B. Donoway	COUNTY	Montgomery
DRAWN BY	B. Donoway	LOGMILE	15035501.43
CHECKED BY	N. LEARY	TIMS NO.	1488
F.A.P. NO.	SEE TITLE SHEET	TOD NO.	

TS NO. 4228 C DRAWING TSP-6 OF 20 SHEET NO. ### OF ###

WR&A

WHITMAN, REQUARDT
& ASSOCIATES, LLP
801 South Caroline Street, Baltimore, Maryland 21231